

Build It Right

Guidelines for
Public Eating Places
and Food Handling Places



County of San Bernardino · Human Services System
Department of Public Health
DIVISION OF ENVIRONMENTAL HEALTH SERVICES
www.sbcounty.gov/dehs

BUILD IT RIGHT

These guidelines are intended to assist the contractor, designer, or owner in the development of plans when constructing or remodeling a food facility in the County of San Bernardino. These guidelines have been developed by the Southern California Food Technical Advisory Committee and the California Conference of Directors of Environmental Health.

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CONSTRUCTION PLAN APPROVAL PROCEDURES FOR FOOD FACILITIES

Pursuant to the California Uniform Retail Food Facilities Law, Section 113915, a plan approval must be obtained from the County of San Bernardino, Division of Environmental Health Services (DEHS) before constructing, altering, converting or remodeling any building used as a food facility. ("Remodel" means construction, building, or repair to the food facility that requires a permit from the local building authority.) For purposes of Article 11 (commencing with Section 114250), Article 12 (commencing with Section 114285) and Article 16 (commencing with Section 114345), remodel means any replacement or significant modification of an integral piece of equipment. The following is required to process and obtain approval to open for business:

1. Submit three (3) sets of detailed plans and specifications, complete an application for Food Service Plan Review and pay the required plan check fees.
2. The plans must include sufficient information to demonstrate compliance with the California Uniform Retail Food Facilities Law in order to be approved (see "Requirements For Food Facility Plan Approval," page 2.)
3. Plans may be prepared by an architect, draftsman, contractor or owner. All plans must be drawn to a minimum scale of 1/4" per foot in a professional manner encompassing all applicable requirements of this construction guide.
4. Plans will be approved or rejected within twenty (20) working days after receipt and the applicant will be so notified. Plans that are incomplete, or have a multitude of required changes will have two (2) sets returned for revision before approval will be granted.
5. Upon approval, two (2) sets of plans will be returned to the applicant, and the third (3rd) set will be kept on file until construction has been completed. An approved set of plans must be maintained at the construction site until the final inspection has been made.
6. If any changes on the plans are desired after approval has been obtained, additional approval from DEHS must be obtained for such changes. (Amended plans will be required.)
7. If plans are not picked up or arrangements made by the applicant or his agent within ninety (90) days after notification of approval or rejection, plans shall be discarded.
8. Obtain approval from appropriate planning department.
9. Before beginning construction, a building permit must be obtained from the appropriate Department of Building and Safety. (By law, building permits for food facilities are not to be issued until plan approval has been obtained from DEHS.)
10. Call for first construction inspection when floors, walls, cove base, and ceiling materials are completed, just prior to installing major equipment. Call two (2) working days prior to needed construction inspection for scheduling with the Plan Check Specialist.
11. All construction and equipment installations are subject to final on-site inspection. If there are any questions during the construction phase and/or prior to the facility opening (one to two weeks), the applicant should call the DEHS Plan Check Specialist to avoid possible delays in opening.

12. The food facility shall not be open for business until final approval is granted by the Plan Check Specialist. Appointments for preopening final inspections must be coordinated at least two (2) working days in advance with the inspector to prevent opening delays. Final approvals will be contingent on the following:
 - a. The facility must conform to the latest set of approved plans.
 - b. Proof that the appropriate Building & Safety and Fire Departments have inspected/approved the facility on site, (i.e., final sign off on respective "Job cards", conditional final, etc.)
 - c. Permanent utilities (electric, gas, potable water, sewage disposal) must be provided at time of final inspection to determine operation of all equipment.
13. The applicant/manager will receive an application for an Environmental Health Permit when final approval is granted. A receipt of fees paid for a permit must be posted prior to opening the facility.
 NOTE: *It is the owner's responsibility to annually renew this permit prior to the expiration date or incur a penalty.*

REQUIREMENTS FOR FOOD FACILITY PLAN APPROVAL

The plans shall show and specify in detail the following:

GENERAL:

1. Provide exact name and address of the food facility, the name and telephone number of the owner, contractor and contact person.
2. Plans shall be drawn to scale, e.g., minimum 1/4" =1 foot using nonerasable ink or print (no pencil), and shall include:
 - a. The site plan shall include proposed exterior rubbish and food waste storage receptacle location with approved drainage.
 - b. Floor plan of entire food establishment, e.g., toilets, dressing room, storage, garbage and trash areas, etc., including all interior and exterior doors. (Include total square footage of the facility.)
 - c. Complete equipment layout, including elevations of equipment and equipment specifications. List type, make and model numbers of all equipment. (Supplement I and II.)
 - d. Complete plumbing layout showing sewer, waste drains, floor sinks, vents, cleanouts, etc.
 - e. Electrical layout including lighting.
 - f. Complete finish schedule for walls, ceilings, and floors that indicates the type of material, the color, the surface finish, and the type of integral coved base at the floor/wall juncture.
 - g. Complete mechanical/exhaust ventilation layout including make-up air. Indicate type of hoods, calculations, etc. (See Supplement V and VI.)
 - h. Location of the manager's or chef's office if needed. Spaces such as employee change rooms or food storage areas cannot be used for office space.

3. State on the plans whether the food facility is served by a Public Water System or individual water wells. If water wells are to be the source of potable water, contact the Environmental Health Services, Water Program for water supply permit requirements. (Requirements include chemical analysis and a minimum of 50 foot seal on well.)
4. State on the plans whether the food facility is served by a sewer district or by an on-site sewage disposal system.

NOTE: If an on-site sewage disposal system is to be installed, approval must be obtained from San Bernardino County Environmental Health Services Water and Waste Management/LEA section, at (909) 884-4036.

5. Approved materials and good workmanship are significant factors in the evaluation and final approval of food facility construction and equipment installation.
6. All new and replacement food-related and utensil-related equipment shall meet or be equivalent to Approved Applicable Sanitation Standards (ANSI). In the absence of approved applicable sanitation standards, food-related and utensil-related equipment shall be approved by the enforcement agency. Nothing in this section shall preclude the department from approving nationally recognized sanitation standards. Until the department approved standards pursuant to this section, standards adopted by nationally recognized testing organizations, as of January 1, 1997, may be used.

FIELD CONSTRUCTION INSPECTIONS

1. PRELIMINARY CONSTRUCTION INSPECTION

When finished surface materials are completed, i.e., walls, ceilings, floors and coved base, with plumbing, rough ventilation, and rough equipment installation, you must contact the Plan Check Specialist who reviewed your plans for a ***preliminary construction inspection***. Requests should be made at least two (2) working days in advance. A preliminary inspection should be scheduled for no less than two weeks prior to the proposed opening of the food establishment.

2. FINAL CONSTRUCTION INSPECTION

Upon completion of all construction, including all finishing work, ***you must contact*** the Plan Check Specialist who reviewed your plans to arrange for a ***final construction inspection***. You will not be approved to operate or issued a Health Permit until the establishment passes a final inspection. In no case should a final inspection be requested less than two (2) working days prior to the proposed opening of the establishment. ***Final construction must be approved by DEHS prior to opening for business or use of remodeled areas.***

GENERAL CONSTRUCTION AND EQUIPMENT REQUIREMENTS

1. FLOORS

- a. Floors in food establishments (except in dining areas) shall be durable, smooth and impervious to water, grease, acid, and of easily cleanable construction, e.g., sealed concrete, quarry or ceramic tile, ***commercial grade*** sheet vinyl with bonded joints (vinyl tiles are not acceptable). Floor surfaces in all areas where food is prepared, packaged, dispensed or stored, where any utensil is washed, where refuse or garbage is stored, where janitorial facilities are located, in all toilet and handwashing areas and in employee change and storage areas, shall be an approved type that ***continues up the wall*** or toe-kicks on counters, at least four (4) inches, in a seamless

manner, forming a 3/8 inch minimum radius cove as an integral unit. Vinyl rubber topset base is not acceptable. (See Supplement VIII.)

- b. Floor drains are required in floors that are water-flushed for cleaning, and/or where pressure spray methods for cleaning equipment are used. Where floor drains are utilized, the floor surface shall be sloped 1:50 to the floor drains.
- c. High pressure hot water cleaning systems may be required in addition to floor *drains* if the degree of roughness of the slip resistant agent is deemed excessive upon evaluation by this Division.
- d. Flooring under equipment and on the coved bases shall be completely smooth. Floor surfaces which contain slip resistant agents shall be restricted to traffic areas only.

2. WALLS

- a. Except as provided in subdivision (b) the walls and ceilings of all rooms shall be of a durable, smooth, nonabsorbent, light colored, and washable surface. For purposes of this chapter, light-colored shall mean having a light reflectance value of 70 percent or greater.
- b. This section shall not apply to the following areas:
 - 1.) Walls and ceilings of bar areas in which alcoholic beverages are sold or served directly to the patrons, except wall areas adjacent to bar sinks and areas where food is prepared.
 - 2.) Areas where food is stored only in unopened bottles, cans, cartons, sacks, or other original shipping containers.
 - 3.) Dining and sales areas.
 - 4.) Offices.
 - 5.) Restrooms that are used exclusively by the patrons (where additional restrooms are provided for employees); provided, however, that the walls and ceilings in such restrooms shall be of a nonabsorbent and washable surface.
- c. Acoustical paneling may be utilized providing it is installed not less than 1.8 meters (6 feet) above the floor. Any perforations shall not penetrate the entire depth of the panel, shall not be greater than 3 millimeters (1/8 inch) in any dimension, and shall not comprise more than 25 percent of the exposed panel surface. The paneling shall otherwise meet the requirements of this section.

NOTE: Brick, concrete block, rough concrete, rough plaster, grooved paneling, wood, wall paper or vinyl wall covering are not acceptable.

- d. Wall surface materials are subject to evaluation and may require submission of samples.
- e. All wall surfaces shall be covered with a gloss or semi-gloss enamel, epoxy, fiberglass reinforced polyester panels (FRP), ceramic tile or other approved materials.
- f. All walls behind sinks and dishwashers must be protected with at least a 4-foot high water resistant material (e.g., FRP, stainless steel, ceramic tile or other approved material).

3. CEILINGS

- a. Blown acoustical-type ceiling is not acceptable.
- b. An approved list of acoustic ceiling panels is available. (See Supplement IX.)

NOTE: Waitress stations, salad bars, ice machines, food serving or self-service open food and drink counters, or other similar stations located immediately adjacent to or in dining areas, must comply with floor, wall and ceiling requirements.

4. CONDUIT

- a. All plumbing, electrical, and gas lines shall be concealed within the building structure as much as possible. Where this is absolutely not possible, all runs shall be at least 1/2 inch away from the walls or ceiling and at least six (6) inches off the floor.
- b. Where conduit or pipe lines enter a wall, ceiling or floor, the opening around the line shall be tightly sealed.
- c. Conduit, pipe or drain lines shall not be installed across any aisle, traffic area or door opening at or near the floor surface.
- d. Multiple runs or clusters of conduit or pipelines shall be furred out and encased in an approved raceway or other sealed enclosure to prevent a vermin harborage.

5. EXHAUST HOODS AND DUCTS

- a. Mechanical exhaust ventilation shall be required at or above all ranges, griddles, ovens, deep fat fryers, barbecues, rotisseries and high temperature dishwashing machines or similar equipment to effectively remove grease, smoke, steam, vapors, heat or odors.

A **Type I Hood** is a kitchen hood for collecting and removing grease and smoke. They shall be equipped with approved grease filters or grease extractors designed for that specific purpose.

NOTE: This section shall not apply to cooking equipment that has been evaluated by the State Health Department and found to produce no heat, smoke, grease or gases.

A **Type II Hood** is a general kitchen hood for collecting and removing steam, vapors, heat or odors.

- b. All hoods, ducts, and exhaust outlets shall be installed in accordance with Chapter 20 of the current edition of the Uniform Mechanical Code as adopted by the local building department.
- c. Detailed requirements: Provide an illustration sheet showing hood exhaust data. (See Supplement VI.) Contact this Division for more detailed requirements.
- d. All joints and seams shall be sealed or soldered for ease of cleaning. Riveted seams are not acceptable.
- e. Canopy-Type Hoods: Canopy-type hoods shall not be more than four (4) feet above the cooking surface. The hood shall overhang or extend a horizontal distance not less than six (6) inches beyond the outer edges of the cooking surfaces, on all open sides. It shall have grease troughs or drip pans that are easily cleanable.
- f. Noncanopy-Type (High Velocity) or Back Shelf Hoods: Noncanopy-type hoods will be approved providing they are constructed to be easily cleanable and they comply with the minimum exhaust

air velocity requirements. Shielding at the ends of the hood may be necessary to prevent interference from cross drafts.

- g. Make-Up Air: Make-up air shall be provided equal to that amount which is mechanically exhausted, and shall be electrically interconnected on a single switch. Windows and doors shall not be used for the purpose of providing make-up air.
- h. Food heating or warming devices, i.e., cheese melters, that are installed above other equipment yet beneath an exhaust hood may create an air flow obstruction to proper ventilation of the equipment for which the hood ventilation system is designed.

The design, construction and installation of such warming devices under a hood are thereby subject to evaluation and approval by this Division prior to installation.

- i. Fire Suppression Systems: Fire suppression systems may be required by local fire department codes. They shall be installed so as to allow ease of cleaning in the hood and duct systems.

6. REFRIGERATION

- a. All refrigeration units shall be adequate in capacity to the needs of the proposed operation and shall comply with the following requirements:
 - 1.) Be specifically constructed for commercial use (ANSI listed). (*Domestic model refrigeration units will not be accepted.*)
 - 2.) Be provided with an accurate, readily visible thermometer.
 - 3.) Have shelving that is nonabsorbent and easily cleanable. (*Wood is not acceptable.*)
 - 4.) Have smooth, nonabsorbent and easily cleanable surfaces. All joints must be sealed.
 - 5.) Condensate waste from refrigeration units must be drained into a floor sink via legal air gap (*two times the diameter of the pipe*) or to a built in self-evaporation tray.
 - 6.) Rapid cool down facilities shall be required depending on the food operation.
- b. WALK-IN REFRIGERATION UNITS SHALL ALSO:
 - 1.) Have an integrally coved base with a radius of at least 3/8 inch at the floor/wall juncture; the floor material shall extend up to a height of at least four (4) inches on the walls. Four (4) inch approved metal topset coving with a minimum 3/8 inch radius is acceptable against metal wall surfaces of walk-in refrigeration units. (*Wood is not an acceptable interior finish.*)
 - 2.) Have shelving that is at least six (6) inches off the floor with smooth, round, metal legs or cantilevered, suspended directly from the wall, for ease of cleaning. Wood shelving IS NOT acceptable.

Small, easily movable, castered dollies may be used in place of a lower shelf inside a walk-in refrigeration unit.

- 3.) Have condensate waste drain into a floor sink via legal air gap. The floor sink must be located outside the walk-in refrigeration unit and within the building.

NOTE: Walk-in refrigeration units shall open into the food facility.

7. ICE MACHINES

All ice machines shall be located inside the food establishment in an easily cleanable, well-ventilated area, and shall be drained to a floor sink via legal air gap of at least two pipe diameters.

8. FLOOR SINKS

- a. All condensate and other liquid waste from equipment shall be drained by means of indirect waste pipes into a floor sink via legal air gap of at least two pipe diameters.
- b. Floor sinks shall be installed flush with the floor surface and have strainers and proper grates.
- c. Horizontal runs of drain lines shall be at least 1/2 inch from the wall and six (6) inches off the floor with a 1/4" per foot slope until terminating at least above the overflow rim of the floor sink two pipe diameters.
- d. Floor sinks shall be located so that they are readily accessible for inspection, cleaning and repair. The floor sink must be located within 15 feet of the drain opening of the equipment served.
- e. Waste lines shall not cross any aisle, traffic area or door opening at or near the floor.
- f. Floor sinks or floor drains are not permitted inside walk-in refrigeration unit.

9. KITCHEN UTENSIL SINK

- a. Where open foods are prepared/served, there shall be provided a three-compartment stainless steel sink with dual integral installed stainless steel drainboards that drains to a floor sink via air gap of at least two pipe diameters.
- b. The minimum compartment size shall be at least 18"x 18" x 12" deep with minimum 18" x 18" drainboards, or 16" x 20" x 12" deep with minimum 16" x 20" drainboard. ***However, the sink must otherwise be capable of accommodating the largest utensil to be washed and the drainboards shall be as large as the largest sink compartment.***
- c. When a sink is installed next to a wall, a metal "backsplash" extending up the wall at least eight (8) inches shall be formed as an integral part of the sink, and sealed to the wall.
- d. In large food facilities which may contain separate sections or departments, additional three-compartment sinks may be required for cleanup procedures in delis, meat processing areas, fish processing areas, bakeries, sushi bars, etc.
- e. A kitchen utensil sink is not required if facility is 100% prepackaged, e.g., no food or drink preparation or serving; no coffee service; no ice packaging; no unpackaged snacks, candy, beef jerky; no beer tappers; no beverage dispensing, etc.

10. FOOD/VEGETABLES PREPARATION SINKS

Food facilities utilizing a sink for food preparation, such as thawing, washing vegetables, etc., shall have at least one (1) one-compartment food/vegetable preparation sink, separate from utensil washing sinks, that drains to a floor sink via air gap of at least two pipe diameters. At least one attached drainboard is recommended.

11. EATING AND DRINKING UTENSIL SINKS

- a. A three-compartment stainless steel sink with dual, integrally installed, stainless steel drainboards shall be provided with indirect waste to a floor sink.
- b. The minimum compartment size shall be at least 18" x 18" x 12" deep with minimum 18" x 18" drainboards. However, the sink must otherwise be capable of accommodating the largest utensil to be washed, and the drainboards shall be as large as the largest sink compartment that is over 18 inches.
- c. Bar sinks shall have a minimum compartment size of 10" x 14" x 10" deep (or a *minimum of 140 square inches in surface size*), with dual integral drainboards, a minimum of 18" long. Bar sinks shall have a quick drain or a fourth sink compartment for disposal of drink/ice waste. Bar sinks shall drain to a floor sink via air gap of at least two pipe diameters.
- d. When dishes and utensils are to be sanitized for public reuse, sanitizing agents shall be provided with the appropriate testing equipment, i.e., color test strips.

12. AUTOMATIC DISHWASHER/GLASS WASHERS

- a. All automatic dishwashers and glass washers must meet or be equivalent to Approved Applicable Sanitation Standards (ANSI) and must drain to a floor sink or other approved method via air gap of at least two pipe diameters.
- b. All spray-type dishwashers and glass washers which are designed for a hot water bactericidal rinse shall be provided with a booster heater that meets or is equivalent to approved applicable sanitation standards or be connected to an approved recirculating water system which is capable of maintaining the rinse water at not less than 180°F. These dishwashers require an approved exhaust hood.
- c. Dishwashing machines are to be provided with a pre-rinse unit. Garbage disposals are recommended.
- d. Dishwashers and glass washers must have two (2) integral stainless steel drainboards at least 18 inches long or the width of dishwasher rack (whichever is greater). Drainboards for under-counter units may be adjacent to the machine. Drainboards of adjacent sinks may not be used by dishwashers and glass washers.
- e. The dishwasher must also be provided with thermometers and pressure gauges to indicate the proper water flow pressures, and temperatures. Appropriate valves for testing the accuracy of the gauges and thermometers shall also be properly installed.
- f. A minimum three-compartment, stainless steel sink with dual integral drainboards is required in addition to any dishwashing or glass-washing machine.
- g. If a glass washer is proposed, one of the following must be provided:

- 1.) A 3-compartment sink within the area or an adjacent kitchen.
 - 2.) A "backup" glass washer.
 - 3.) A dishwasher in an adjacent kitchen.
- h. Chemical sanitizing dishwashers and glass washers shall be provided with a sanitizing test kit.

13. **GARBAGE DISPOSALS**

Garbage disposals, if proposed, must be installed in drainboards if the drainboard is lengthened to accommodate the disposal unit in addition to the minimum 18" required drainboard size. Garbage disposals shall not be placed in or under any sink compartment. The waste piping shall be connected directly to the sewage system.

14. **JANITORIAL SINK AND SUPPLIES**

- a. A janitorial sink shall be located within the building, in a separate janitorial room or separated from the rest of the food establishment by a solid-wall partition. The partition must be a minimum six (6) foot high, durable, smooth and an easily cleanable surface.
- b. A one-compartment, wall-mounted janitorial sink or a floor mounted janitorial sink, or a curbed area, (properly sloped to a drain), that has hot and cold running water through a mixing faucet, with an approved backflow-prevention device, shall be installed for general cleanup activities. All curbed-area surfaces shall be smooth, impervious and of easily cleanable construction. Where duckboards or floor mats are used in the food establishment, a curbed area with a drain is required for cleaning.
- c. All poisonous substances, detergents, bleaches, cleaning compounds, and all other injurious or poisonous materials shall be stored and used only in a manner that is not likely to cause contamination or adulteration of food, food contact surfaces, utensils, or packaging materials.

15. **HANDWASHING SINKS**

- a. Hand sinks shall be provided in the food preparation areas that are sufficient in number and conveniently located so as to be accessible at all times for use by food handlers. Hot and cold water through a premixing faucet is required.
- b. Soap and sanitary towels shall be provided in single-service, permanently-installed dispensers at the hand sinks.
- c. A separate, approved hand sink must be conveniently located in each area of a food establishment which handles unpackaged food (*i.e., deli, meat, fish, produce, bakery, bars, sushi bars, oyster bars, etc.*).

16. **GENERAL PURPOSE HOT WATER**

- a. Provide a hot water heater which is capable of constantly supplying hot water at a temperature of at least 120°F at all times to all sinks, hand lavatories and other cleanup facilities. In sizing the water heater, the peak hourly demands for all sinks, etc., are added together to determine the minimum required recovery rate. (See Supplemental X, Computing Hot Water Demands.)

The water heater should not be purchased until this Division has determined the minimum required recovery rate for the particular food establishment.

- b. All sinks shall be provided with hot and cold running water from a mixing faucet.

17. DIPPER WELL

A running water dipper well must be provided if scoops or other reusable serving utensils are used for dipping ice cream, butter, etc. The dipper well shall be drained to a floor sink via air gap of at least two pipe diameters.

18. WINDOW SCREENS

All openable windows, such as restroom windows, shall be screened with not less than 16 mesh screening.

19. SERVICE OF UNPACKAGED FOODS/UTENSILS DIRECTLY TO OR BY THE CUSTOMER

Displays of unpackaged foods or utensils shall be shielded so as to intercept a direct line between the customer's mouth and the food or utensils being displayed, or shall be dispensed from approved self-service containers.

- a. Cafeteria, buffet and salad bar self-service; food preparation equipment and food preparation areas, etc., shall be protected by approved sneeze guards.
- b. Cleaned and sanitized glasses and stemware that are displayed or stored in bar areas over customer service counters shall be protected from contamination by customers.
- c. Approved self-service containers shall have close-fitting, individual covers and if opened by the customer shall be self-closing.

20. BACKUP DRY FOOD AND BEVERAGE STORAGE

- a. Adequate and suitable floor space shall be provided within the enclosed walls of the building for the storage of food, beverages, and related products. In addition to working storage and refrigeration storage, additional backup storage must be provided. Working storage is considered to be cabinets over and under food handling equipment and wall mounted shelves which are located in and used in conjunction with food preparation areas. All food storage areas must open into the food facility.
 - 1. The floor space required for backup dry food storage shall be a minimum of 100 square feet or 25% of the food preparation area (whichever is greater).
 - 2. In most cases, at least 32 linear feet of approved shelving units are required for each 100 square feet of floor space dedicated to dry storage. However, depending on the size and type of operation, additional shelving may be required.
 - 3. Shelving units shall be a minimum of 18 inches in depth and at least three (3) tiers high.
- b. Shelving shall be impervious and a smooth easily cleanable surface. Wood shelving is NOT approved. Shelves installed on a wall shall have at least one (1) inch of open space between the back edge of the shelf and the wall surface, otherwise, the back edge of the shelf shall be sealed to the wall with approved silicone sealant or equivalent. The lowest shelf shall be at least six (6) inches above the floor, with a clear, unobstructed area below, or be the upper surface of a completely sealed, continuously coved base, with minimum height of four (4) inches. All shelves located below a counter or work surface shall be set back at least two (2) inches from the drip line of the surface above.

- c. If shelves are supported by legs on the floor, the legs shall be smooth, round, metal equipment legs.
- d. Electrical panels, large fire prevention system components or similar wall-mounted equipment shall not be installed in food storage rooms. (*Approval may be granted by this department for such installations if provisions are made to compensate for the space required for the installation.*)
- e. Each department in a grocery store which handles unpackaged foods, i.e., deli, meat, fish, bakery, etc., and satellite food service facilities in restaurants, i.e., sushi bars, oyster bars, etc., must provide its own dry food storage space based upon the minimum requirements contained in this section. This is in addition to general bulk storage.
- f. Within bars/taverns, a separate room or area with at least 50 square feet of floor space shall be dedicated for backup beverage and bar supply storage. At least 16 linear feet of approved shelving units shall be installed in the 50 square feet of dedicated floor space. However, depending on the size and type of operation, additional shelving may be required. When a bar is located within a restaurant, the storage requirement for the bar must be provided in addition to the required backup dry food storage.
- g. Within produce departments of grocery stores or produce stores (*produce only*), a separate room or area with at least 50 square feet of floor space shall be dedicated for storage of food and packaging supplies. In most cases, at least 16 linear feet of approved shelving units shall be installed in the 50 square feet of dedicated backup storage space. However, depending on the size and type of operation, additional storage may be required.
- h. Adequate and suitable space shall be provided for storage of clean linens, including apparel towels and cleaning cloths.

21. RESTROOMS

- a. Toilet facilities shall be provided within each food establishment, convenient for the employees. (*Check with local Building and Safety departments for special circumstances, such as the American Disability Act.*)
- a. Every food facility where food or beverage is consumed on *site (inside or outside)* shall have two (2) restrooms (*one for each sex*). Where alcoholic beverages are consumed on site, a urinal is required in the men's restroom. (See supplemental sheet XI.)
- c. Toilet facilities shall be so situated that patrons do not pass through food preparation, food storage or utensil washing areas when they are allowed access to the toilet facilities.
- d. The floors, walls and ceilings shall have surfaces that are smooth, nonabsorbent and easily cleanable. A four-foot-high wainscot of a durable impervious material shall be installed above the 4-inch coving on all restroom walls.

Fiberglass reinforced polyester paneling (FRP) ceramic tile, stainless steel, or smooth cement plaster may be used as a wainscot.
- e. Handwashing lavatories shall be provided within or immediately adjacent to the toilet rooms. The lavatory shall be provided with hot and cold running water from a premixing type faucet.

Soap and sanitary towels in single-service, permanently installed dispensers shall be provided at the lavatory sink.

- f. Toilet tissue shall be provided in a permanently installed dispenser at each toilet.
- g. The restrooms shall be provided with tight-fitting, self-closing doors.
- h. All toilet rooms shall be provided with ventilation approved by this Division. If adequate ventilation cannot be provided by an openable, screened window, mechanical ventilation will be required.

22. EMPLOYEE CHANGE ROOMS

- a. A room with lockers or shelf and pole at least 4-foot x 5-foot minimum with door, separated from toilets, food storage or food preparation areas shall be provided where employees may change their clothes and store their outer garments and personal belongings. A larger change room or an additional room may be required, depending upon the total number of employees. The change room(s) shall be large enough to accommodate a standard locker for each employee per shift.

*NOTE: Check with local Building and Safety departments for American Disability Act requirements.

- b. The clothing change rooms shall not be used as an office or for other food establishment activities.
- c. No telephone jacks, computer jacks, water heaters or other appurtenances will be accepted in this room.

23. PASS-THROUGH WINDOWS

- a. When food is passed through a window to a customer on the outside of the building, the size of the window opening shall not exceed 432 square inches.
- b. Food service pass-through window openings exceeding 216 square inches shall be equipped with an air curtain which will produce an air flow eight inches thick at the discharge opening and with an air velocity of not less than 600 feet per minute (FPM) across the entire opening at a point three feet below the air curtain. (Window openings must be closed when not in use.)
- c. Food service pass-through window openings less than 216 square inches shall be equipped with a self-closing screen, window or solid closing device.
- d. The minimum distance between the openings may not be less than 18 inches.
- e. The counter surface of the pass-through window must be smooth, free of channels and crevices, and be easily cleanable.

24. DELIVERY DOORS

- a. All delivery doors leading to the outside shall open outward, be self-closing and shall be provided with an overhead air curtain. An air curtain device must provide 750 feet per minute at all delivery doors that are four (4) feet or less in width. An air curtain device must provide 1,600 feet per minute at all delivery doors that are over four (4) feet in width.

- b. Large cargo-type doors shall not open directly into a food preparation area. Cargo-type doors that open into any food warehouse or food facility may only be open during deliveries.
- c. An air curtain is not a substitute device to permit a door to remain open.

25. CUSTOMER'S ENTRANCE DOORS

All entrance doors leading to the outside shall be tight fitting, open outward and be self-closing to effectively prevent the entrance of insects and rodents.

26. GARBAGE AND TRASH AREA

- a. An area shall be provided for the storage and cleaning of garbage and trash containers.
- b. The walls, floor and ceiling of this room or outside area shall be constructed so as to be smooth, impervious and easily cleanable.
- c. Inside trash storage areas shall properly drain (slope 1:50) to a floor drain.
- d. Outside trash storage areas shall properly drain so as not to create a nuisance.
- e. Outside trash storage areas should be situated as far away from delivery doors as possible.

27. LIGHTING

- a. All food preparation areas, all dishwashing areas and all bar and fountain glass washing sink areas (*except where alcoholic beverage utensils are washed*), shall be provided with at least 20 foot-candles of light, 30 inches above the floor.
- b. Food and utensils storage rooms, alcoholic beverage prep areas, refrigeration, storage, toilet rooms and dressing rooms shall be provided with at least 10 foot-candles of light.
- c. A minimum of 20 foot-candles of light shall be provided in all areas during cleanup activities.
- d. Light fixtures in areas where food is prepared, open food is stored or utensils are cleaned shall be of shatterproof construction or shall be protected with shatterproof shields.

28. VENTILATION

Provide adequate ventilation to remove gases, odors, steam, heat, grease, vapors or smoke from all rooms in the facility including toilet, janitorial, storage, change rooms, etc.

29. EQUIPMENT

- a. All new and replacement food-related and utensil-related equipment shall meet or be equivalent to approved applicable sanitation standards (ANSI). In the absence of approved applicable sanitation standards, food-related and utensil-related equipment shall be approved by the enforcement agency. Nothing in this section shall preclude the department from approving nationally recognized sanitation standards. Until the department approved standards pursuant to this section, standards adopted by nationally recognized testing organizations, as of January 1, 1997, may be used.

- b. All show and display cases, counters, shelves, tables, refrigeration equipment, sinks and other equipment used in connection with the preparation, service and display of food shall be made of nontoxic materials and so constructed and installed as to be easily cleaned.
- c. All floor-mounted equipment shall be placed on minimum six-(6) inch high, metal legs or completely sealed in position on a four-(4) inch high continuously-coved base or concrete curb, or on approved casters or cantilevered from the wall in an approved manner.

30. WATER

An adequate, protected, pressurized, potable water supply shall be provided to serve the facility. The water supply shall be from an approved source.

31. BACKFLOW PROTECTION

An approved backflow presenter shall be properly installed upstream of any potential hazard between the potable water system and a source of contamination, e.g., all threaded water outlets, mop sinks, sprayers, dishwashers, etc.

32. SEWAGE DISPOSAL/GREASE INTERCEPTORS

- a. All liquid waste, including sewage, generated by a food establishment shall be disposed of in an approved manner into either a public sewer system or to an approved on-site sewage disposal system.
- b. When a grease interceptor or grease trap is required by the local Building and Safety department, the unit should be installed outside the food facility in the ground. If the unit is installed inside the food facility, it shall not be installed in the food preparation area and must be flush with the floor.
- c. All grease waste must be stored in an approved leak proof container with a tight fitting lid. All grease waste must be removed from the premises and disposed in an approved manner.

NOTE: Check with local agencies (i.e., Building and Safety Department and Local Sewage District) for special sewerage and grease interceptor requirements.

PRELIMINARY FOOD FACILITY PLAN REVIEW SHEET

Establishment Name _____

Address _____

Contact Name and Phone No. _____

Yes No

		Three (3) identical complete sets of plans.
		Site plan including trash enclosure.
		Floor plan drawn to scale of 1/4"=1' showing all equipment.
		Name of establishment, address, owner or contractor's address, contact phone number on plans.
		Finish Schedule – Indicate materials and color.

	Floor	Integral Coving	4' Wainscot	Walls	
Service Counter					
Food Prep Area					
Dry Storage					
Walk-In Box					
Restroom(s)					
Dressing Room					
Dishwashing Area					
Additional Areas					

**A schedule similar to this is
to appear on your plans**

		Dry Storage Room MINIMUM OF 100 sq. ft., or 25% of food prep area, whichever is greater. (Show minimum metal shelving at least three (3) tiers high)
		Dressing Room – MINIMUM size 4' x 5' with door
		*Restrooms – male and female; urinal required in men's restrooms if alcoholic beverages are served.
		Make, manufacturer and model number of all equipment. If installing dishwasher, submit information on unit
		Exhaust Hood – Detailed drawings, specifications, and calculations. 100% make-up air required and electrically with exhaust system on one switch.
		Commercial Hood – Mechanical Exhaust Data Information Sheet
		Three (3) compartment sink with equal sized metal drainboards attached to both ends. Sink must indirect waste
		Food Prep Sink
		Handwashing Sink – to be located in food prep area
		Mop Sink – for disposal of dirty mop water and cleaning mops. (Area to store mops, brooms, etc.)
		Cabinet or Secured Area with lock to store cleaning agents and poisons.
		Type and Size of water heater (number of BTUs or KWs)

*See supplemental XI

Date _____ Owner/Agent Signature _____

Environmental Health Specialist/Technician Signature _____

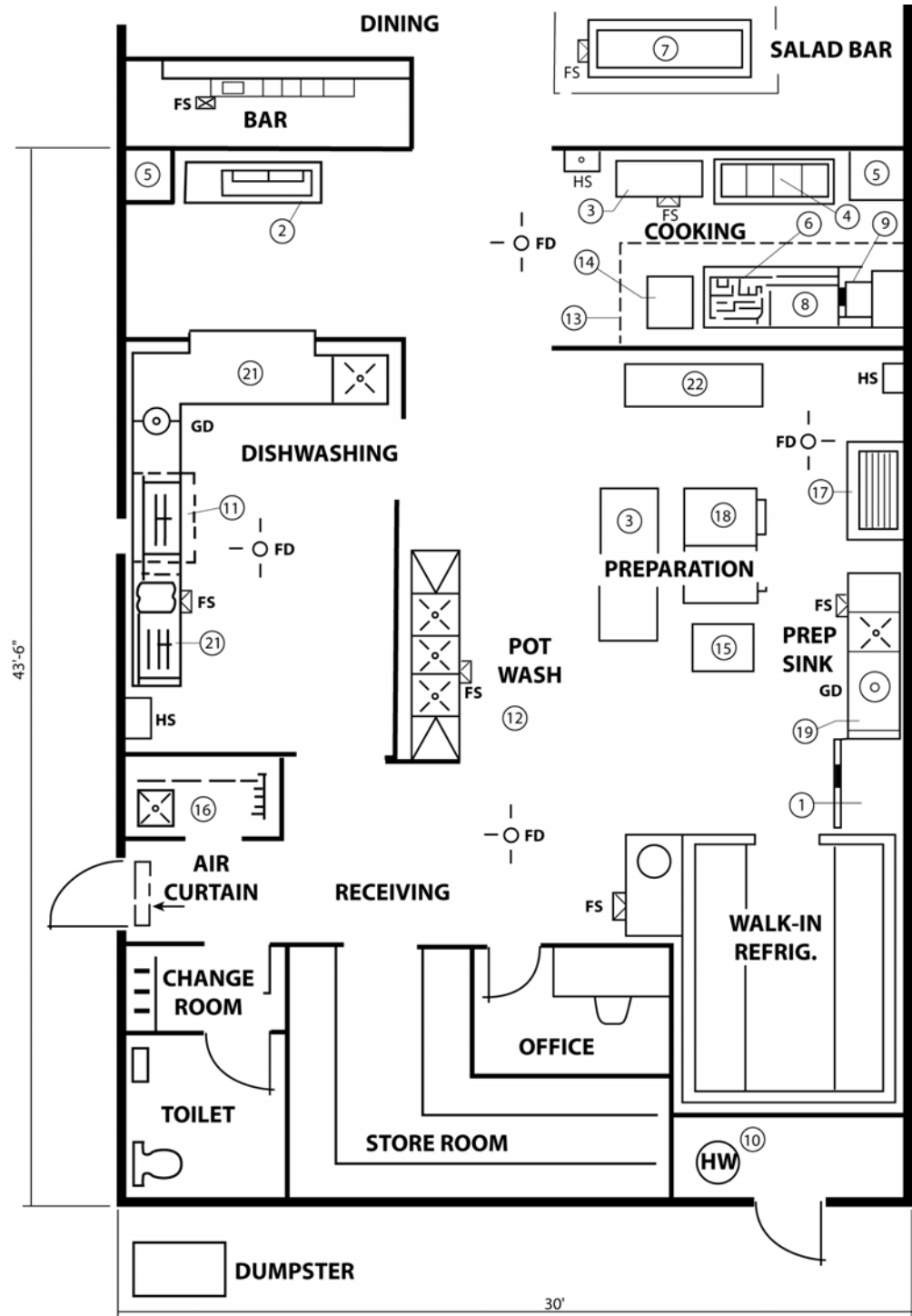
PLAN CHECKERS MAY BE REACHED BETWEEN 8:00 AND 9:00 AM

SAMPLE FLOOR PLAN

NOTE:

TWO PUBLIC RESTROOMS
IN DINING ROOM
NOT SHOWN
(SEE SUPPLEMENTAL XI)

URINAL REQUIRED IF
ALCOHOLIC BEVERAGES
ARE CONSUMED
ON PREMISES



SCALE: 1/4"=1'-0"

NOTE: FLOOR TO SLOPE TO FDs

Each piece of equipment is numbered to correspond to the listing on Supplemental III.

Floor Drains: FD; Floor Sinks: FS; Hand Sinks: HS; Hoods at or over equipment.

Note: This is not intended as a model layout but ONLY to illustrate procedure for submitting plans and data for approval.

Scale has been reduced for illustration only.

SAMPLE EQUIPMENT SCHEDULE

E Q U I P M E N T No.	*EQUIPMENT MAKE AND MODEL	G A S C O N N E C T I O N	E L E C T R I C A L	H O T W A T E R	C O L D W A T E R	W A S T E W A T E R	COMMENTS
1, 5	Reach-in Refrigerator Forte: Side Model EHS		110V 20A			F.S.	
2	Salad and Sandwich Table Coltor: Model DLM		110V 20A				Self-contained
3	Work Table, Stainless Steel Top – Coltor, Custom						Made to dimensions supplies by General Contractor
4	Steam Table – Fulton FW – 100	½"			½"	F.S.	Anti-siphon Valve at water
6	Heavy Duty Range Fulton, Model I.A.N.	¾"					
7	Salad Bar W/Approved Sneeze guard - by General Contractor					F.S.	See detail sheet for evaluations
8	Steam Cooker Fulton, SC5				½"	F.S.	Anti-siphon Valve
9	Deep Fat Fryer Meier, Type L	½"					
10	Hot Water Heater Mills G-BT155	¾"		1"	1"		155,000 BTU
11	Dishmachine and Hood Warford., QF-1		220V	1"	1"	F.S.	High-temperature dishwasher hood
12	Pot Sink Coltor, 18" x 18" x 18" F			½"	½"	2"	
13	Hood Custom by General Contractor						See mechanical drawing, detail
14	Bake Oven Meier, O/B	¾"					
15	Proofing Cabinet Meier, P-C	½"					
16	Mop Sink Coltor, STD			½"	½"	2"	18x18x18 fiber glass/cantilevered from wall
17	Bakers Table Custom by CONRAD						Hardwood top
18	Freezer Forte: Side Model F		110V				Self-contained
19	Prep Sink Coltor, Custom			½"	½"	F.S.	One compartment w/drainboard extended for disposal

***ABOVE EQUIPMENT LISTINGS ARE FICTITIOUS**

THIS IS A SAMPLE **ONLY**: Specific Brand Names and colors for materials should be specified to insure acceptability.

SAMPLE FINISH SCHEDULE

	FLOOR	FLOOR BASE OR COVE	WALLS	CEILING
FOOD PREPARATION	QUARRY TILE	QUARRY TILE, UP WALL 4 INCHES 3/8" RADIUS COVE	F.R.P.	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
DISHWASHING	QUARRY TILE	QUARRY TILE, AS ABOVE	F.R.P.	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
STOREROOM	COMMERCIAL GRADE SHEET VINYL	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	DRYWALL WITH WHITE GLOSS ENAMEL	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
WAITRESS SERVICE STATION	QUARRY TILE	QUARRY TILE, AS ABOVE	GREENBOARD, 4 FT. CERAMIC WAINSCOT, LIGHT COLORED	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
BAR	QUARRY TILE	QUARRY TILE, AS ABOVE	F.R.P.	WASHABLE NON-ABSORBENT LAY-IN CEILING PANELS
SALAD BAR	QUARRY TILE: EXTENDS 36" BEYOND TABLE ON ALL SIDES	QUARRY TILE, AS ABOVE	N.A.	LAY-IN PANELS
RESTROOMS	CERAMIC TILE	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	GREENBOARD, 4 FT. CERAMIC WAINSCOT	WATER-RESISTANT DRYWALL, WHITE ENAMEL
CLEANING EQUIPMENT/ MOP EQUIPMENT	QUARRY TILE	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	F.R.P.	WASHABLE NON-ABSORBENT CEILING PANELS
DRESSING ROOM(S)	CERAMIC TILE	CONTINUOUS WITH FLOOR UP WALL 4 INCHES WITH 3/8" RADIUS COVE	DRYWALL WITH WHITE ENAMEL	LIGHT-COLORED ENAMEL PAINTED DRYWALL
WALK-IN REFRIGERATOR	**SEALED SMOOTH CONCRETE	PREFABRICATED STAINLESS STEEL WALL UP WALL 4 INCHES, 3/8" RADIUS SANITARY COVE	PREFABRICATED STAINLESS STEEL	PREFABRICATED STAINLESS STEEL

*SALAD BAR IS COVERED ON TOP AND SIDES BY AN APPROVED SNEEZE GUARD: SEE DETAIL SHEET A-4.

**SMOOTH CONCRETE IS SEALED TO BE GREASE RESISTANT WITH AN APPROVED SEALER.

COMMERCIAL HOODS/MECHANICAL EXHAUST DATA INFORMATION SHEET

Establishment Name: _____

Job Address: _____

Owners Name: _____ Phone: _____

Contractor/ Agent: _____ Phone: _____

- Provide the following information concerning mechanical exhaust and hood design (3 sets required).
- One set of data sheets for each hood system.

Size of Hood: _____

CFM: _____

Formula & Calcs as per current Uniform Mechanical Code

Number of duct(s): _____ Size of duct(s): _____

Number of grease filters: _____

Size of grease filters: _____

Rating of each filter: (CFM or FPM) _____

Type of filter: Mesh _____ Baffle _____

Make-up Air (CFM): _____

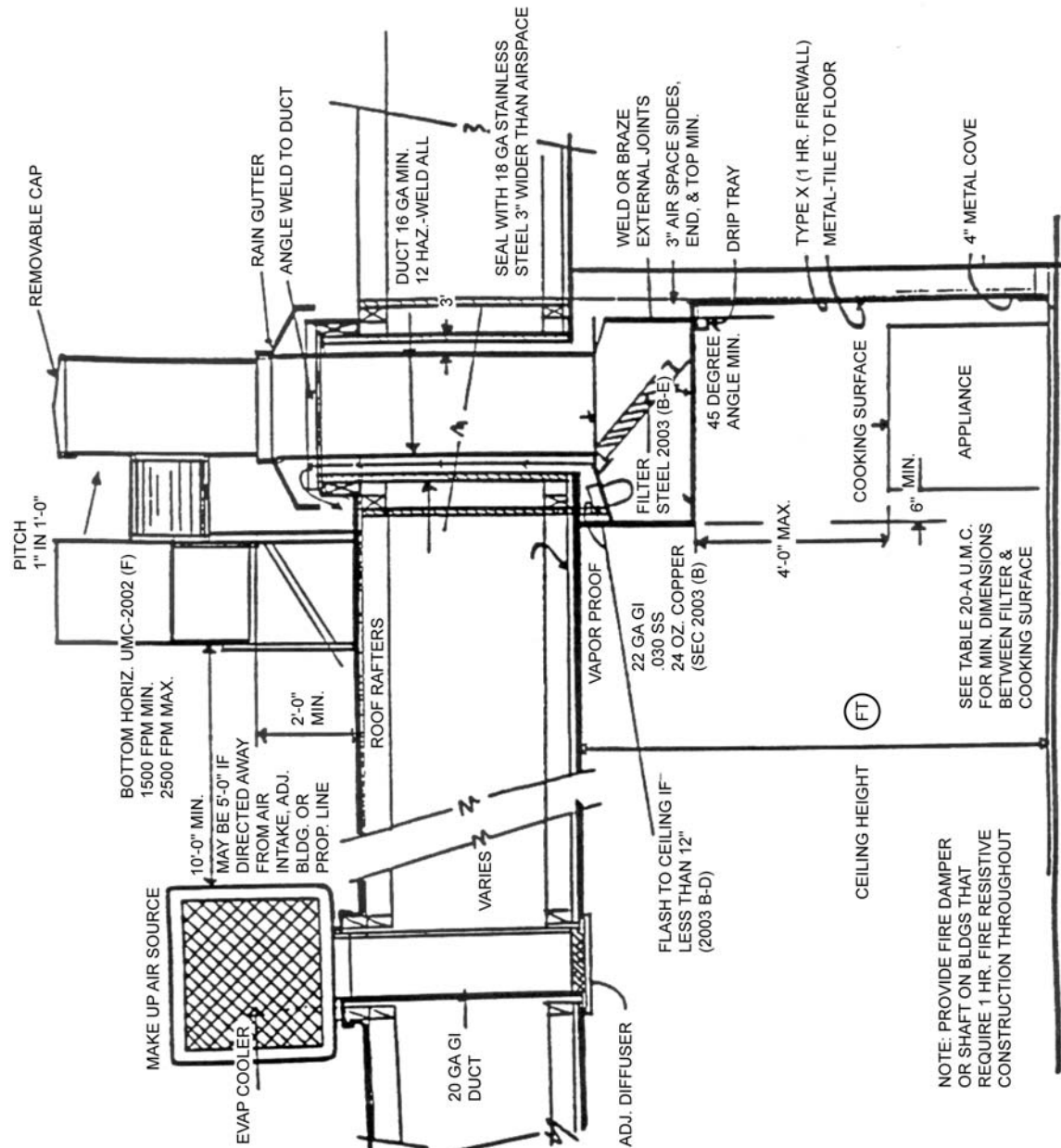
(100% make-up air required to be electrically interconnected to exhaust system on 1 switch).

Elevated drawing of hood and cooking equipment shown on page # _____ of plans.

ICBO# _____ Must be listed for compensating hoods only

Hood Manufacturer (required for listed hoods) _____

- Hood design and construction shall meet recognized standards.
- Flashing shall extend from hood to floor coving.
- Wall surfaces within 18" of all cooking equipment shall be flashed.

SAMPLE HOOD DETAIL

NOTE: Code sections refer to Uniform Mechanical Code (U.M.C.) Excerpts from Chapter 20 of the U.M.C.

EXCERPTS FROM CURRENT UNIFORM MECHANICAL CODE

SECTION 508 COMMERCIAL KITCHEN HOODS

508.1 Where Hoods Are Required. Hoods shall be installed at or above all commercial-type deep-fat fryers, broilers, fry grills, steam jacketed kettles, hot-top ranges, ovens, barbecues, rotisseries, dishwashing machines and similar equipment which produce comparable amounts of steam, smoke, grease or heat in a food-processing establishment. For the purpose of this section a food-processing establishment shall include any building or portion thereof used for the processing of food but shall not include a dwelling unit.

508.2 Materials and Installation. Types I and II hoods shall be constructed of galvanized steel, stainless steel, copper or other material approved by the building official for the use intended.

508.2.1 Type I hoods. Type I hoods constructed of galvanized steel shall be at least 0.030 inch (0.76 mm) (No. 22 gauge) steel.

508.2.2 Type II hoods. Type II hoods shall be constructed of at least 0.024-inch (0.61 mm) (No. 24 gauge) steel. Hoods constructed of copper shall be of copper sheets weighing at least 24 ounces per square foot (7.3 kg/m²). Hoods constructed of stainless steel shall have a minimum thickness of 0.030 inch (0.76 mm).

508.2.3 Supports. Hoods shall be secured in place (for OSHPD 1, 2 & 4] to resist the lateral loads given in the California Building Code, Title 24, Part 2, by noncombustible supports.

508.2.4 Joints and seams. Joints and seams shall be substantially tight. Solder shall not be used except for sealing a joint or seam. **508.3 Cleaning and Grease Gutters.** When installed, a hood shall be designed to provide for thorough cleaning of the entire hood. When grease gutters are provided, they shall drain to a collecting receptacle, fabricated, designed and installed to be accessible for cleaning.

508.4 Clearances for Type I Hood. A Type I hood shall be installed with clearance of at least 18 inches (457 mm) from combustible construction. This clearance may be reduced to 3 inches (76 mm), provided the combustible material is protected with materials as specified for one-hour fire-resistive construction on the hood side. Hoods less than 12 inches (305 mm) from the ceiling or wall shall be flashed solidly with materials of the thickness specified in Section 508.2 or materials conforming to one-hour fire-resistive construction.

508.4.1 Hoods penetrating a ceiling. Type I hoods or portions thereof penetrating a ceiling, wall or furred space shall comply with all the requirements of Section 507.6.

508.5 Grease Filters. Type I hoods shall be equipped with approved grease filters designed for the specific purpose. [For SFM, A DHS, DSA/SSJ] Grease filters shall be Class I when tested in L C accordance with the test method in SFM 12-71-1. Grease-collecting equipment shall be accessible for cleaning. The lowest edge of a grease filter located above the cooking surface shall be at least the height set forth in Table 5-D.

508.5.1 Criteria. Filters shall be of such size, type and arrangement as will permit the required quantity of air to pass through such units at rates not exceeding those for which the filter or unit was designed or approved. Filter units shall be installed in frames or holders with handles by which they may be readily removed without the use of tools, unless designed and installed to be cleaned in place and the system is equipped for such cleaning in place. They shall be sized and made removable so they may be passed through a dishwashing machine or cleaned in a pot sink and so arranged in place or provided with drip intercepting devices as to avoid grease or other condensate from dripping into food or on food preparation surfaces.

508.5.2 Mounting position. Filters shall be installed at an angle greater than 45 degrees from the horizontal and shall be equipped with a drip tray beneath the lower edge of the filters.

508.6 Canopy Size and Location. For canopy-type commercial cooking hoods the inside edge thereof shall overhang or extend a horizontal distance of not less than 6 inches (152 mm) beyond the edge of the cooking surface on all open sides, and the vertical distance between the lip of the hood and the cooking surface shall not exceed 4 feet (1219 mm).

EXCEPTION: Listed exhaust hoods are to be installed in accordance with the terms of their listing and manufacturer's installation instructions.

508.7 Capacity of Hoods. Canopy-type commercial cooking hoods shall exhaust through the hood a minimum quantity of air determined by application of the following formulas:

WHERE:

A = the horizontal surface area of the hood, in square feet (m^2).

D = distance in feet (m) between the lower lip of the hood and the cooking surface.

P = that part of the perimeter of the hood that is open, in feet.

Q = quantity of air, in cubic feet per minute (m^3/s).

When cooking equipment is installed back to back and is covered by a common island-type hood, the airflow required may be calculated using the formula for three sides exposed. Type II hood airflow requirements shall be in accordance with the requirements for low-temperature appliance hoods.

508.7.1 Solid fuel. Type I hoods for use over solid-fuel cooking equipment shall be provided with separate exhaust systems. Undefined cooking equipment other than solid-fuel cooking equipment may be installed under a common hood. The minimum airflow for solid-fuel cooking equipment, grease-burning charboilers, and undefined equipment shall be:

Number of Exposed Sides	Formula
-------------------------	---------

For SI:

4 (island or central hood)	$Q = 300A$	$Q = 0.46A$
3 or less	$Q = 200A$	$Q = 0.31A$
Alternate formula	$Q = 100PD$	$Q = 0.16PD$

EXCEPTION: Listed exhaust hoods are to be installed in accordance with the terms of their listing and the manufacturer's installation instructions.

508.7.2 High temperature. Type I hoods when the cooking equipment includes high-temperature appliances such as deep-fat fryers:

Number of Exposed Sides	Formula
-------------------------	---------

For SI:

4 (island or central hood)	$Q = 150A$	$Q = 0.23A$
3 or less	$Q = 100A$	$Q = 0.16A$
Alternate formula	$Q = 100PD$	$Q = 0.16PD$

EXCEPTION: Listed exhaust hoods are to be installed in accordance with the terms of their listing and the manufacturer's installation instructions.

508.7.3 Medium temperature. Type I hoods when the cooking equipment includes medium-temperature appliances such as rotisseries, grills and ranges:

Number of Exposed Sides	Formula
-------------------------	---------

For SI:

4 (island or central hood)	$Q = 100A$	$Q = 0.16A$
3 or less	$Q = 75A$	$Q = 0.12A$
Alternate formula	$Q = 50PD$	$Q = 0.08PD$

EXCEPTION: Listed exhaust hoods are to be installed in accordance with the terms of their listing and the manufacturer's installation instructions.

508.7.4 Low temperature. Type I hoods where the cooking equipment includes low-temperature appliances such as medium-to-low-temperature ranges, roasters, roasting ovens, pastry ovens and equipment approved for use under a Type II hood, such as pizza ovens:

Number of Exposed Sides	Formula
-------------------------	---------

For SI:

4 (island or central hood)	$Q = 75A$	$Q = 0.12A$
3 or less	$Q = 50A$	$Q = 0.08A$
Alternate formula	$Q = 50PD$	$Q = 0.08PD$

EXCEPTION: Listed exhaust hoods are to be installed in accordance with the terms of their listing and the manufacturer's installation instructions.

508.8 Capacity for Noncanopy Hoods. In addition to all other requirements for hoods specified in this section, the volume of air exhausting through a noncanopy-type hood to the duct system shall not be less than 300 cubic feet per minute per lineal foot [$0.046 m^3/(s \cdot m)$] of cooking equipment. Listed noncanopy grease hoods and filters shall be sized and installed in accordance with the terms of their listing and the manufacturer's installation instructions.

508.9 Exhaust Outlet. An exhaust outlet within the hood foot (3658 mm) section of hood.

EXCEPTION: Listed exhaust hoods are to be installed in accordance with terms of their listing and the manufacturer's installation instructions.

508.10 Performance Test. Upon completion and before final approval of the installation of a ventilation system serving commercial food heat-processing equipment, a performance test may be required to verify the rate of airflow and proper operation as specified in this chapter. The permittee shall furnish the necessary test equipment and devices required to perform the tests.

FLOORING MATERIALS INFORMATIONAL BULLETIN

The California Uniform Retail Food Facilities Law (CURFFL) requires that floors in the following areas shall be "smooth and of durable construction and nonabsorbent material which is easily cleaned. These floor surfaces shall be coved at the juncture of the floor and wall with a 3/8 inch minimum radius coving and shall extend up the wall at least 4 inches."

The Department of Environmental Health considers the following finish materials to meet the criteria stated above:

1. Quarry tile floor with a quarry tile coved base.
2. Ceramic tile floor with a ceramic tile coved base. The ceramic tile must be slip resistant.
3. Commercial grade sheet vinyl flooring coved up the wall with properly installed coving board behind for support.
4. Concrete floor with an approved grease resistant sealer and one of the following coved bases:
 - A. slim foot ceramic tile
 - B. metal coving properly installed
5. Approved troweled on epoxy floor with integrally formed epoxy cove.
6. Other equivalent materials may be allowed on a case-by-case basis upon review of the manufactures literature and a product sample.

NOTE: FLOOR MATERIALS MUST BE COMPATIBLE WITH COVING

These approved floor materials are required in the following areas:

- | | |
|--|------------------------------------|
| ❖ Kitchen areas | ❖ Waitress stations |
| ❖ Food preparation and food handling areas | ❖ Salad bar areas |
| ❖ Sink areas | ❖ Self-serve drink and food areas |
| ❖ Utensil washing areas | ❖ Hand wash sink areas |
| ❖ Ice machine areas | ❖ Restrooms |
| ❖ Janitorial and mop sink areas | ❖ Garbage and refuse storage areas |

Four (4) inch vinyl or rubber topset cover base and vinyl composition tile floor will be permitted only in the following areas:

- | | |
|--|-----------------------|
| ❖ Customer areas | ❖ Other nonfood areas |
| ❖ Original bulk container packaged dry food storerooms | ❖ Dressing rooms |
| | ❖ Offices |

ACOUSTIC CEILING PANELS

The following acoustic lay-in ceiling panels are approved for use in the following areas of food establishments in San Bernardino County.

- Food preparation areas
- Open food handling (waitress stations, ice machine, drink dispenser, etc.)
- All sink areas (dishwashing, utensil sink, hand sink, mop sink)
- Restrooms

<u>MANUFACTURER</u>	<u>PRODUCT</u>
Armstrong #870:	Mina board ML (metal laminate; nonperforated) Acoustic-Clad (nonperforated)
Armstrong #1721:	Mylar Fire Guard (nonperforated)
Capaul:	Envirogard with Clean Room Facing
Domtar Gypsum:	White Vinyl Facing Pane
Marlite:	FRP Ceiling Panels a) .090 inch Pebble Finish b) .030 inch Laminated to 5/8" Gypsum Panel c) .030 inch Laminated to Class A/1 5/8"
U. S. Gypsum #3270:	Vinyl Rock
U. S. Gypsum #56091:	Envirogard with Clean Room Facing

This list is subject to revision at any time. Persons wishing approval on panels other than those listed above may submit them to the Division of Environmental Health Services for review. Call (909) 387-4608 for details.

NOTE: Tiles should be held in place by hold down clips or two-way tape on T-Bars.

COMPUTING HOT WATER DEMANDS FOR FOOD ESTABLISHMENTS

- A. Hot and cold water under pressure shall be provided through a mixing valve to each sink compartment.

<u>1. Fixture</u>	<u># of Compartments</u>	<u>Gallons per Hour</u>
Pot Sinks 18"x18"	1	14
Pot Sinks 18"x18"	2	28
Pot Sinks 18"x18"	3	42
2. Vegetable sinks (food prep)		5
3. Mop sinks		15
4. Lavatories (hand sinks)		5

If any other plumbing fixtures will be installed such as bar sinks, dishwashing machines, pre-wash (dishwashing), etc., please consult the Plan Check Specialist in either the Ontario, San Bernardino, or Victorville office for assistance.

Example:

Plumbing	GPH (peak demand)
3 Compartment Sink	42
Mop Sink	15
Food Prep Sink	5
3 Hand Sinks	<u>15</u>
	77 gph

Factors of Formula

Wt. Of water per gal = 8.33

Temp. rise (average) 120°F - 70°F change

Thermal efficiency .. gas - .75

Thermal efficiency electric = .98 (round off to 1.0 for ease of calculation)

1 KW = 3,412 BTU's (round off to 3,400)

1. GAS HOT WATER SYSTEMS

Formula

BTU input = gph x wt. Per gal x temp. rise
Thermal efficiency of equipment

$$\frac{77\text{GPH} \times 8.33 \times 50^{\circ}\text{F}}{.75} = \frac{32,071 \text{ BTUs}}{.75} = 42,761 \text{ BTUs}$$

2. ELECTRIC HOT WATER HEATER SYSTEMS

Formula

Kws=gph x st water x temp rise – thermal efficiency – kw conversion

$$\frac{77 \times 8.33 \times 50^{\circ}\text{F}}{1} = \frac{32.071 \text{ BTU}}{3400 \text{ KW Conversion}} = 9.4 \text{ KW}$$

SAN BERNARDINO COUNTY CODE**33.048 Lavatory, Establishments Serving Food and Beverages**

- (a) Every restaurant, cafe, bar, tea room, facility or other place where food, beer or alcoholic liquor is sold for consumption on the premises shall have maintained by the operator thereof, accessible within the enclosure walls of the building, room, or place, at least one separate toilet and adjacent hand washing facility for men and one separate toilet and adjacent hand washing facility for women, for the use of the patrons and employees of such establishment. All hand washing facilities shall be supplied with hot and cold running water under pressure. All establishments serving alcoholic beverages for consumption on the premises shall provide a minimum of one (1) urinal in each men's toilet room. All plumbing and plumbing fixtures shall be kept in good repair.
- (b) EXCEPTIONS
 - (1) Public toilets may be accessible through an outside entrance if the building is free standing with no adjacent barriers to entrance of restrooms.
 - (2) Provided no alcoholic beverages are sold for consumption on the premises, only one (1) public toilet for customers will be required if:
 - a) The customer area inside the establishment is less than three hundred (300) square feet, as determined by DEHS; or
 - b) The seating area outside the establishment is less than three hundred (300) square feet, as determined by DEHS.
 - (3) If a building is remodeled so either the inside customer area or the outside seating area becomes greater than three hundred (300) square feet, then two (2) customer restrooms will be required as specified in subdivision (a) of this section.

Before drawing and submitting plans to DEHS for plan check:

1. Refer questions regarding this code to a plan check specialist at one of the above offices.
2. Contact all appropriate local departments including planning, building and safety, fire, etc., to obtain their requirements.